

An English translation of amended claims
under PCT Article 19

CLAIMS

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1. (Amended) A brittle substrate cutting system comprising:
a scribing apparatus including a scribing line forming means for forming a scribing line on a first surface of a brittle substrate; and
10 a breaking apparatus for breaking the brittle substrate along the scribing line,
wherein the breaking apparatus includes a pressing means for pressing a second surface of the brittle substrate,
a first holding means for holding the first surface of the
15 brittle substrate, and a first pressing controlling means for controlling the pressing means such that the pressing means moves along the scribing line while the pressing means presses the second surface of the brittle substrate opposing the first surface of the brittle substrate with the first surface of the brittle substrate being held by the first holding means,
20 wherein a groove section is formed in the pressing means such that the pressing means does not contact with a line on the second surface of the brittle substrate, the line opposing the scribing line.
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2. (Amended) A brittle substrate cutting system according to claim 1, wherein the first pressing controlling means controls the pressing means such that the pressing means moves along the scribing line while the first holding means and the pressing means oppose each other with the brittle substrate therebetween.
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3. (Amended) A brittle substrate cutting system according to claim 1, wherein the first pressing controlling means controls the pressing means such that the pressing means rolls along the scribing line.

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4. A brittle substrate cutting system according to claim 3, wherein the pressing means is a roller.

10 5. A brittle substrate cutting system according to claim 3, wherein the pressing means is a conveyor.

6. A brittle substrate cutting system according to claim 3, wherein the pressing means is a bearing.

15 7. (Deleted)

20 8. (Amended) A brittle substrate cutting system according to claim 1, wherein the breaking apparatus further comprises a first holding controlling means for controlling the first holding means such that the first holding means moves along the scribing line while the first holding means and the pressing means oppose each other with the brittle substrate therebetween.

25 9. A brittle substrate cutting system according to claim 8, wherein the first holding controlling means controls the first holding means such that the first holding means rolls along the scribing line.

30 10. A brittle substrate cutting system according to claim 9, wherein the holding means is a roller.

11. A brittle substrate cutting system according to claim

9, wherein the holding means is a conveyor.

12. A brittle substrate cutting system according to claim 9, wherein the holding means is a bearing.

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13. (Amended) A brittle substrate cutting system according to claim 1, wherein a groove section is formed in the first holding means such that the first holding means does not contact with the scribing line.

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14. A brittle substrate cutting system according to claim 13, wherein the width of the groove section formed in the first holding means is larger than that of the pressing means.

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15. (Amended) A brittle substrate cutting system according to claim 1, wherein the pressing means further comprises a second holding means and a third holding means for moving along the scribing line in a first direction and for holding the brittle substrate, the second holding means and the third holding means being arranged in the first direction from the pressing means, and

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the breaking apparatus further comprises a second holding controlling means for controlling the second holding means such that the second holding means moves on the first surface along the scribing line while the second holding means holds the brittle substrate, and controlling the third holding means such that the third holding means moves on the second surface along the scribing line while the third holding means holds the brittle substrate.

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16. A brittle substrate cutting system according to claim 15, wherein the second holding controlling means controls the second holding means such that the first holding means

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and the second holding means move at a predetermined speed and the second holding controlling means controls the third holding means such that the third holding means and the pressing means move at the predetermined speed while the 5 second holding means and the third holding means oppose each other with the brittle substrate therebetween.

17. (Amended) A brittle substrate cutting system according to claim 1, wherein the pressing means further comprises a fourth holding means and a fifth holding means for moving along the scribing line in a first direction and for holding the brittle substrate, the fourth holding means and the fifth holding means being arranged in a direction opposite to the first direction from the pressing means.

15 18. A brittle substrate cutting system according to claim 1, wherein the scribing line forming means comprises a laser beam irradiating means for irradiating a laser beam on the first surface of the brittle substrate and a cooling means 20 for cooling the vicinity of the portions of the first surface of the brittle substrate where the laser beam is irradiated by the laser beam irradiating means.

25 19. A brittle substrate cutting system according to claim 18, wherein the cooling means is a cooling nozzle, and the cooling nozzle cools the vicinity of the portions where the laser beam is irradiated by spraying a cooling medium on the first surface of the brittle substrate.

30 20. A brittle substrate cutting system according to claim 19, comprising a laser beam/cooling medium receiving section for receiving at least one of the laser beam irradiated by the laser beam irradiating means and the cooling medium

sprayed by the cooling nozzle.

21. A brittle substrate cutting system according to claim 20, wherein the laser beam/cooling medium receiving section 5 is movable separately from the pressing means.

22. A brittle substrate cutting system according to claim 19, wherein the cooling nozzle is movable along the scribing line.

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23. A brittle substrate cutting system according to claim 18, wherein the scribing line forming means further comprises a notch forming cutter mechanism for forming a notch at a starting position of forming the scribing line on the first 15 surface of the brittle substrate.

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24. A brittle substrate cutting system according to claim 23, wherein the notch forming cutter mechanism is integrally movable with the laser beam irradiating means and the cooling means.

25. A brittle substrate cutting system according to claim 1, wherein the scribing line forming means is a cutter.

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26. A brittle substrate cutting system according to claim 25, wherein the cutter is a disk-shaped cutter wheel tip, and an edge portion is formed in an outer circumferential edge of the cutter wheel tip.

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27. A brittle substrate cutting system according to claim 26, wherein a plurality of recessed portions are formed in a ridge-shaped section of the edge portion with a predetermined distance.

28. A brittle substrate cutting system according to claim 25, wherein the cutter is movable separately from the pressing means.

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29. (Amended) A brittle substrate cutting system according to claim 1, wherein the first pressing controlling means controls the pressing means such that the pressing means moves along the scribing line while the first holding means 10 and the pressing means oppose each other with the brittle substrate therebetween and while the scribing line forming means forms the scribing line on the first surface of the brittle substrate.

15 30. A brittle substrate cutting system according to claim 1, wherein the scribing apparatus comprises a scribing line forming means for forming the scribing line on the first surface of the brittle substrate while the first surface of the brittle substrate is held, and

20 the breaking apparatus further comprises a pressing means for pressing the second surface opposing the first surface of the brittle substrate.

31. (Amended) A brittle substrate cutting system according 25 to claim 1, wherein the brittle substrate is a bonded substrate obtained by bonding a first substrate and a second substrate,

 the scribing apparatus comprises a first scribing forming means for forming a first scribing line on a first surface of the bonded substrate and a second scribing line forming means for forming a second scribing line on a second surface of the bonded substrate opposing the first surface of the bonded substrate,

 the breaking apparatus breaks the bonded substrate

along the first scribing line and breaks the bonded substrate along the second scribing line, and

5 wherein the breaking apparatus further includes a first bonded substrate pressing means for pressing a second surface of the bonded substrate, a first bonded substrate holding means for holding the first surface of the bonded substrate, and the first pressing controlling means for controlling the first bonded substrate pressing means such that the first bonded substrate pressing means moves along
10 the scribing line while the first bonded substrate pressing means presses the second surface of the bonded substrate opposing the first surface of the bonded substrate with the first surface of the bonded substrate being held by the first bonded substrate holding means,

15 wherein a first groove section is formed in the first bonded substrate pressing means such that the first bonded substrate pressing means does not contact with a line on the second surface of the bonded substrate, the line opposing the first scribing line.

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32. (Amended) A brittle substrate cutting system according to claim 30, wherein the breaking apparatus further comprises:

25 a second bonded substrate pressing means for pressing the first surface of the bonded substrate;

a second bonded substrate holding means for holding the second surface of the bonded substrate; and

30 a second pressing controlling means for controlling the second bonded substrate pressing means such that the second bonded substrate pressing means moves along the scribing line while the second bonded substrate pressing means presses the first surface of the bonded substrate opposing the second surface of the bonded substrate with

the second surface of the bonded substrate being held by
the second boded substrate holding means,

5 wherein a second groove section is formed in the
second bonded substrate pressing means such that the second
bonded substrate pressing means does not contact with a line
on the first surface of the bonded substrate, the line opposing
the second scribing line.

10 33. (Amended) A brittle substrate cutting system according
to claim 32, wherein the brittle substrate cutting system
comprises a first controlling means for the pressing means
for controlling the first bonded substrate pressing means
such that the first bonded substrate pressing means moves
along the first scribing line while the first bonded substrate
holding means and the first bonded substrate pressing means
oppose each other with the bonded substrate therebetween;
15 and

20 a second controlling means for the pressing means
for controlling the second bonded substrate pressing means
such that the second bonded substrate pressing means moves
along the second scribing line while the second bonded substrate
holding means and the second bonded substrate pressing means
oppose each other with the bonded substrate therebetween.

25 34. (Amended) A brittle substrate cutting system according
to claim 33, wherein the first controlling means for the
pressing means controls the first bonded substrate pressing
means such that the first bonded substrate pressing means
rolls along the first scribing line, and

30 the second controlling means for the pressing means
controls the second bonded substrate pressing means such
that the second bonded substrate pressing means rolls along

the second scribing line.

35. (Amended) A brittle substrate cutting system according to claim 34, wherein the first bonded substrate pressing means and the second bonded substrate pressing means are rollers.

36. (Amended) A brittle substrate cutting system according to claim 34, wherein the pressing means is a conveyor.

37. A brittle substrate cutting system according to claim 34, wherein the pressing means is a bearing.

38. (Amended) A brittle substrate cutting system according to claim 32, wherein the breaking apparatus further comprises a first controlling means for the holding means for controlling the first bonded substrate holding means such that the first bonded substrate holding means moves along the first scribing line while the first bonded substrate holding means and the first bonded substrate pressing means oppose each other with the bonded substrate therebetween, and

a second controlling means for the holding means for controlling the second bonded substrate holding means such that the second bonded substrate holding means moves along the second scribing line while the second bonded substrate holding means and the second bonded substrate pressing means oppose each other with the bonded substrate therebetween.

39. A brittle substrate cutting system according to claim 38, wherein the first controlling means for the holding means controls the first bonded substrate holding means such that the first bonded substrate holding means rolls along the

first scribing line, and

the second controlling means for the holding means
controls the second bonded substrate holding means such that
the second bonded substrate holding means rolls along the
second scribing line.

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40. A brittle substrate cutting system according to claim
39, wherein the first bonded substrate holding means and
the second bonded substrate holding means are rollers.

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41. A brittle substrate cutting system according to claim
39, wherein the first bonded substrate holding means and
the second bonded substrate holding means are conveyors.

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42. A brittle substrate cutting system according to claim
39, wherein the first bonded substrate holding means and
the second bonded substrate holding means are bearings.

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43. A brittle substrate cutting system according to claim
38, wherein a third groove section is formed in the first
bonded substrate holding means such that the first bonded
substrate holding means does not contact with the first
scribing line, and

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a fourth groove section is formed in the second bonded
substrate holding means such that the second bonded substrate
holding means does not contact with the second scribing line.

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44. (Amended) A brittle substrate cutting method according
to claim 43, wherein the width of the third groove section
formed in the first bonded substrate holding means is larger
than the first groove section of the first bonded substrate
pressing means, and the width of the fourth groove section
formed in the second bonded substrate holding means is larger

than the second groove section of the second bonded substrate
pressing means.

45. A brittle substrate cutting method according to claim
5 32, wherein the first bonded substrate pressing means and
the second substrate pressing means move in a first direction
along the first scribing line and the second scribing line,
and the brittle substrate cutting system further comprises
10 a third bonded substrate holding means and a fourth bonded
substrate holding means respectively for holding the brittle
substrate in the first direction from the first bonded
substrate pressing means and the second bonded substrate
pressing means, and

15 the breaking apparatus further comprises a third
controlling means for the holding means for controlling the
third bonded substrate holding means such that the third
bonded substrate holding means moves on the first surface
along the first scribing line while the third bonded substrate
holding means holds the bonded substrate, and controlling
20 the fourth bonded substrate holding means such that the fourth
bonded substrate holding means moves on the second surface
along the second scribing line while the fourth bonded
substrate holding means holds the bonded substrate.

25 46. (Amended) A brittle substrate cutting system according
to claim 45, wherein the third controlling means for the
holding means controls the third bonded substrate holding
means such that the third bonded substrate holding means,
the first bonded substrate holding means and the second bonded
30 substrate pressing means move at a predetermined speed and
the third controlling means for the holding means controls
the fourth bonded substrate holding means such that the fourth
bonded substrate holding means, the second bonded substrate

holding means and the first bonded substrate pressing means move at the predetermined speed while the third bonded substrate holding means and the fourth bonded substrate holding means oppose each other with the bonded substrate therebetween.

47. A brittle substrate cutting system according to claim 32, wherein the first bonded substrate pressing means moves in the first direction along the second scribing line,
10 the second bonded substrate pressing means moves in the first direction along the first scribing line, and
the brittle substrate cutting system further comprises a fifth bonded substrate holding means and a sixth bonded substrate holding means respectively for holding the
15 brittle substrate in a direction opposite to the first direction from the first bonded substrate pressing means and the second bonded substrate pressing means.

48. (Amended) A brittle substrate cutting system according to claim 33, wherein the first controlling means for the pressing means controls the first bonded substrate pressing means such that the first bonded substrate pressing means moves along the first scribing line and the second controlling means for the pressing means controls the second bonded substrate pressing means such that the second bonded substrate pressing means moves along the second scribing line while the first bonded substrate holding means and the first bonded substrate pressing means oppose each other with the bonded substrate therebetween, the first scribing line forming means forms the first scribing line on the first surface of the bonded substrate, the second bonded substrate holding means and the second bonded substrate pressing means oppose each other with the bonded substrate therebetween
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and the second scribing line forming means forms the second scribing line on the second surface of the bonded substrate.

49. (Amended) A brittle substrate cutting method, comprising
5 the steps of:

(a) forming a scribing line on a first surface of a brittle substrate; and

(b) breaking the brittle substrate along the scribing line, and

10 the step (b) is performed by a breaking apparatus for breaking the brittle substrate along the scribing line, the breaking apparatus includes:
a pressing means for pressing the second surface of the brittle substrate; and

15 a first holding means for holding the first surface of the brittle substrate,

the step (b) includes the step of:

20 (b-1) controlling the pressing means such that the pressing means moves along the scribing line while the pressing means presses the second surface of the brittle substrate opposing the first surface of the brittle substrate with the first surface of the brittle substrate being held by the first holding means,

25 wherein a groove section is formed in the pressing means such that the pressing means does not contact with a line on the second surface of the brittle substrate, the line opposing the scribing line.

50. (Amended) A brittle substrate cutting method according
30 to claim 49, wherein the step (b-1) includes the step of moving the pressing means along the scribing line while the first holding means and the pressing means oppose each other with the brittle substrate therebetween.

51. (Amended) A brittle substrate cutting method according to claim 49, wherein the step (b-1) includes the step of controlling the pressing means such that the pressing means rolls along the scribing line.

52. A brittle substrate cutting method according to claim 51 wherein the pressing means is a roller.

10 53. A brittle substrate cutting method according to claim 51 wherein the pressing means is a conveyor.

54. A brittle substrate cutting method according to claim 51 wherein the pressing means is a bearing.

15 55. (Deleted)

56. (Amended) A brittle substrate cutting method according to claim 49, wherein the step (b) further includes the step 20 of:

(b-2) controlling the first holding means such that the first holding means moves along the scribing line while the first holding means and the pressing means oppose each other with the brittle substrate therebetween.

25 57. A brittle substrate cutting method according to claim 56, wherein the step (b-2) includes the step of controlling the first holding means such that the first holding means rolls along the scribing line.

30 58. A brittle substrate cutting method according to claim 57, wherein the holding means is a roller.

59. A brittle substrate cutting method according to claim
57, wherein the holding means is a conveyor.

60. A brittle substrate cutting method according to claim
5 57, wherein the holding means is a bearing.

61. (Amended) A brittle substrate cutting method according
10 to claim 49, wherein a groove section is formed in the first
holding means such that the first holding means does not
contact with the scribing line.

62. A brittle substrate cutting method according to claim
15 61, wherein the width of the groove section formed on the
first holding means is larger than that of the pressing means.

63. (Amended) A brittle substrate cutting method according
20 to claim 49, wherein the pressing means moves along the
scribing line in a first direction and further comprises
the brittle substrate in the first direction from the pressing
means,

the step (b) further includes the step of:

25 (b-3) controlling the second holding means such that
the second holding means moves on the first surface along
the scribing line while the second holding means holds the
brittle substrate, and controlling the third holding means
such that the third holding means moves on the second surface
along the scribing line while the third holding means holds
the brittle substrate.

30 64. A brittle substrate cutting method according to claim
63, wherein the step (b-3) includes the step of controlling
the second holding means such that the first holding means

and the second holding means move at a predetermined speed, and controlling the third holding means such that the third holding means and the pressing means move at the predetermined speed while the second holding means and the third holding means oppose each other with the brittle substrate therebetween.

10 65. (Amended) A brittle substrate cutting method according to claim 49, wherein the pressing means moves in a first direction along the scribing line and further comprises a fourth holding means and a fifth holding means for holding the brittle substrate in a direction opposite to the first direction from the pressing means.

15 66. A brittle substrate cutting method according to claim 49, wherein the step (a) includes the steps of:

(a-1) irradiating a laser beam on the first surface of the brittle substrate; and

20 (a-2) cooling the vicinity of the portions of the first surface of the brittle substrate where the laser beam is irradiated by the laser beam irradiating means.

67. A brittle substrate cutting method according to claim 66, wherein the step (a-2) is performed by a cooling medium
25 the cooling means is a cooling nozzle, and the cooling nozzle cools the vicinity of the portions where the laser beam is irradiated, by spraying a cooling medium on the first surface of the brittle substrate.

30 68. A brittle substrate cutting method according to claim 67, wherein the step (a-1) is performed by a laser beam irradiating means and includes the step of receiving at least one of the laser beam irradiated by the laser beam irradiating

means and the medium sprayed by the cooling nozzle.

69. A brittle substrate cutting method according to claim 68, wherein the step of receiving at least one of the laser beam irradiated by the laser beam irradiating means and the medium sprayed by the cooling nozzle is performed by a laser beam/cooling medium receiving section, and the laser beam/cooling medium receiving section is movable separately from the pressing means.

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70. A brittle substrate cutting method according to claim 68, wherein the cooling nozzle is movable along the scribing line.

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71. A brittle substrate cutting method according to claim 66, wherein the step (a) further includes the step of forming a notch at a starting position of forming the scribing line on the first surface of the brittle substrate.

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72. A brittle substrate cutting method according to claim 71, wherein the step of forming a notch is performed by a notch forming cutter mechanism, and

the notch forming cutter mechanism is integrally movable with the laser beam irradiating means and the cooling means.

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73. A brittle substrate cutting method according to claim 49, wherein the step (a) is performed by a scribing line forming means, and

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the scribing line forming means is a cutter.

74. A brittle substrate cutting method according to claim 73, wherein the cutter is a disk-shaped cutter wheel tip,

and an edge portion is formed in an outer circumferential edge of the cutter wheel tip.

5. 75. A brittle substrate cutting method according to claim
74, wherein a plurality of recessed portions are formed in
a ridge-shaped section of the edge portion with a
predetermined distance.

10 76. A brittle substrate cutting method according to claim
73, wherein the cutter is movable separately from the pressing
means.

15 77. (Amended) A brittle substrate cutting method according
to claim 49, wherein the step (b-1) controls the pressing
means such that the pressing means moves along the scribing
line while the first holding means and the pressing means
oppose each other with the brittle substrate therebetween
and while the scribing line forming means forms the scribing
line on the first surface of the brittle substrate.

20 78. A brittle substrate cutting method according to claim
49, wherein the step (a) further includes the step of forming
the scribing line on the first surface of the brittle substrate
while the first surface of the brittle substrate is held,
25 and

the step (b) further includes the step of pressing
a second surface opposing the first surface of the brittle
substrate.

30 79. (Amended) A brittle substrate cutting method according
to claim 49, wherein the brittle substrate is a bonded
substrate obtained by bonding substrates,

the step (a) is performed by a scribing apparatus

for forming a scribing line on a first surface of the brittle substrate,

the scribing apparatus comprises a first scribing forming means for forming a first scribing line on a first surface of the bonded substrate and a second scribing line forming means for forming a second scribing line on a second surface of the bonded substrate opposing the first surface of the bonded substrate,

10 the step (b-1) is performed by a first bonded substrate pressing means for pressing the second surface of the bonded substrate and a first bonded substrate holding means for holding the first surface of the bonded substrate.

the step (b-1) includes the steps of:

15 breaking the bonded substrate along the first scribing line and breaking the bonded substrate along the second scribing line, and

20 controlling the first bonded substrate pressing means such that the first bonded substrate pressing means moves along the scribing line while the first bonded substrate pressing means presses the second surface of the bonded substrate opposing the first surface of the bonded substrate with the first surface of the bonded substrate being held by the first bonded substrate holding means,

25 wherein a first groove section is formed in the first bonded substrate pressing means such that the first bonded substrate pressing means does not contact with a line on the second surface of the bonded substrate, the line opposing the first scribing line.

30 80. (Amended) A brittle substrate cutting method according to claim 49, wherein the breaking apparatus further comprises:

a second bonded substrate pressing means for pressing

the first surface of the bonded substrate; and
a second bonded substrate holding means for holding
the second surface of the bonded substrate;

the step (b) further includes:

5 the second pressing controlling means for
controlling the second bonded substrate pressing means such
that the second bonded substrate pressing means moves along
the scribing line while the second bonded substrate pressing
means presses the first surface of the bonded substrate
10 opposing the second surface of the bonded substrate with
the second surface of the bonded substrate being held by
the second boded substrate pressing means,

15 wherein a second groove section is formed in the
second bonded substrate pressing means such that the second
bonded substrate pressing means does not contact with a line
on the first surface of the bonded substrate, the line opposing
the second scribing line.

20 81. (Amended) A brittle substrate cutting method according
to claim 80, wherein the brittle substrate cutting method
comprises the steps of:

25 controlling the first bonded substrate pressing
means such that the first bonded substrate pressing means
moves along the first scribing line while the first bonded
substrate holding means and the first bonded substrate
pressing means oppose each other with the bonded substrate
therebetween; and

30 controlling the second bonded substrate pressing
means such that the second bonded substrate pressing means
moves along the second scribing line while the second bonded
substrate holding means and the second bonded substrate
pressing means oppose each other with the bonded substrate
therebetween.

82. (Amended) A brittle substrate cutting method according to claim 80, wherein the step (b-1) includes the steps of:
5 controlling the first bonded substrate pressing means such that the first bonded substrate pressing means rolls along the first scribing line; and
 controlling the second bonded substrate pressing means such that the second bonded substrate pressing means rolls along the second scribing line.

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83. (Amended) A brittle substrate cutting method according to claim 82, wherein the first bonded substrate pressing means and the second bonded substrate pressing means are rollers.

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84. (Amended) A brittle substrate cutting method according to claim 82, wherein the pressing means is a conveyor.

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85. (Amended) A brittle substrate cutting method according to claim 81, wherein the pressing means is a bearing.

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86. (Amended) A brittle substrate cutting method according to claim 80, wherein the step (b) further includes the steps of:

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(b-2) controlling the first bonded substrate holding means such that the first bonded substrate holding means moves along the first scribing line while the first bonded substrate holding means and the first bonded substrate pressing means oppose each other with the bonded substrate therebetween, and controlling the second bonded substrate holding means such that the second bonded substrate holding means moves along the second scribing line while the second bonded substrate holding means and the second bonded

substrate pressing means oppose each other with the bonded substrate therebetween.

87. A brittle substrate cutting method according to claim
5 86, wherein the step (b-2) includes the step of controlling
the first bonded substrate holding means such that the first
bonded substrate holding means rolls along the first scribing
line, and controlling the second bonded substrate holding
means such that the second bonded substrate holding means
10 rolls along the second scribing line.

88. A brittle substrate cutting method according to claim
15 87, wherein the first bonded substrate holding means and
the second bonded substrate holding means are rollers.

89. A brittle substrate cutting method according to claim
87, wherein the first bonded substrate holding means and
the second bonded substrate holding means are conveyors.

90. A brittle substrate cutting method according to claim
20 87, wherein the first bonded substrate holding means and
the second bonded substrate holding means are bearings.

91. A brittle substrate cutting method according to claim
25 86, wherein a third groove section is formed in the first
bonded substrate holding means such that the first bonded
substrate holding means does not contact with the first
scribing line, and

30 a fourth groove section is formed in the second bonded
substrate holding means such that the second bonded substrate
holding means does not contact with the second scribing line.

92. (Amended) A brittle substrate cutting method according

to claim 86, wherein the width of the third groove section formed in the first bonded substrate holding means is larger than the first groove section of the first bonded substrate pressing means, and the width of the fourth groove section formed in the second bonded substrate holding means is larger than the second groove section of the second bonded substrate pressing means.

93. A brittle substrate cutting method according to claim
10 80, wherein the first bonded substrate pressing means and the second substrate pressing means respectively move in a first direction along the first scribing line and the second scribing line, and the brittle substrate cutting method further comprises the use of a third bonded substrate holding
15 means and a fourth bonded substrate holding means respectively for holding the brittle substrate in the first direction from the first bonded substrate pressing means and the second bonded substrate pressing means,

the step (b) further includes the step of:

20 (b-3) controlling the third bonded substrate holding means such that the third bonded substrate holding means moves on the first surface along the first scribing line while the third bonded substrate holding means holds the bonded substrate, and controlling the fourth bonded substrate holding means such that the fourth bonded substrate holding means moves on the second surface along the second scribing line while the fourth bonded substrate holding means holds the bonded substrate.

30 94. (Amended) A brittle substrate cutting method according to claim 93, wherein the step (b-3) includes the step of:
controlling the third bonded substrate holding means such that the third bonded substrate holding means, the first

bonded substrate holding means and the second bonded substrate pressing means move at a predetermined speed and the third controlling means for the holding means controls the fourth bonded substrate holding means such that the fourth
5 bonded substrate holding means, the first bonded substrate holding means and the second bonded substrate pressing means move at the predetermined speed while the third bonded substrate holding means and the fourth bonded substrate holding means oppose each other with the bonded substrate
10 therebetween.

95. A brittle substrate cutting method according to claim
80, wherein the first bonded substrate pressing means moves
in the first direction along the second scribing line,
15 the second bonded substrate pressing means moves in
the first direction along the first scribing line,
the brittle substrate cutting method further
comprises the use of a fifth bonded substrate holding means
and a sixth bonded substrate holding means respectively for
20 holding the brittle substrate in a direction opposite to
the first direction from the first bonded substrate pressing
means and the second bonded substrate pressing means.

96. (Amended) A brittle substrate cutting method according
25 to claim 80, comprising the step of controlling the second
bonded substrate pressing means such that the first bonded
substrate pressing means moves along the first scribing line
and controlling the second bonded substrate pressing means
such that the second bonded substrate pressing means moves
30 along the scribing line while the first bonded substrate
holding means and the first bonded substrate pressing means
oppose each other with the bonded substrate therebetween,
the first scribing line forming means forms the first scribing

line on the first surface of the bonded substrate, the second bonded substrate holding means and the second bonded substrate pressing means oppose each other with the bonded substrate therebetween and the second scribing line forming 5 means forms the second scribing line on the second surface of the bonded substrate.